

## REMARKS

Claim 12 again stands rejected under 35 U.S.C. 102(b) as being anticipated by Kubota et al. (English language translation of JP 64-79919), and now alternatively under 35 U.S.C. 103(a) as being unpatentable over the same Kubota reference. Applicant respectfully traverses both rejections for at least the reasons of record. The Examiner has not established a *prima facie* case of either anticipation or obviousness.

Applicant maintains and incorporates by reference herein those arguments previously advanced on pages 4-9 of Amendment D, filed August 23, 2004. Applicant respectfully requests that the Examiner reconsider those arguments, and withdraw the rejections based on the Kubota reference. Additionally, Applicant respectfully requests that the Examiner consider the following arguments in response to the Examiner's new remarks, as well as expansions upon Applicant's previous arguments.

The Examiner mischaracterizes the portion of claim 12 of the present invention that features the use of the sputtering method under the condition of the bias voltage being set to 0 V. The Examiner incorrectly asserts that this limitation to claim 12 is equivalent to a negative limitation of having no bias voltage being applied at all. It is well known in the art that the sputtering method uses bias voltages, and that such bias voltages can be affirmatively set to positive values, negative values, or even a zero value. Accordingly, one skilled in the art will know that "0 V," in relation to a bias voltage for the sputtering method, would not be the absence of bias voltage, but instead an affirmative parameter for the method. A *prima*

*facie* case of either anticipation or obviousness has thus not been established against claim 12 of the present invention.

As discussed above, claim 12 does not recite the negative limitation of “no bias voltage,” as asserted by the Examiner. In fact, claim 12 instead positively recites the limitations of the magnetic layer being laminated with the sputtering method, and that the sputtering method is under the condition of the bias voltage being set to 0 V. The Examiner is correct that Kubota teaches use of the sputtering method (page 8, line 9), however, she acknowledges that Kubota is silent regarding the parameters of the bias voltage for the method. Without a teaching or suggestion for the parameters of the bias voltage (as acknowledged by the Examiner), a *prima facie* case of anticipation cannot be established against claim 12 of the present invention, which positively recites such parameters.

A *prima facie* case of obviousness has similarly not been established against claim 12. Section 2143.03 of the MPEP requires of the Examiner, when attempting to establish a *prima facie* case of obviousness, to cite to where in the prior art is taught or suggested each and every feature and limitation of the claimed invention. In the present case, however, the Examiner has not satisfied this requirement. The Examiner admits that Kubota is silent regarding the value for the bias voltage for the described use of the sputtering method. The Examiner mischaracterizes Kubota’s silence regarding the bias voltage, however, as being equivalent to an “absence of a bias voltage application step,” which the Examiner asserts to be equivalent to a bias voltage of 0 V. The Examiner though, has

provided no citation to any teaching or suggestion within the prior art to support this assertion.

As previously discussed, Kubota specifically teaches that the improvement in the coercive force is a direct result of the *size reduction* of the magnetic zones that is caused by Kubota's thermal treatment. (See page 5, line 24 to page 6, line 2). Kubota repeatedly teaches use of high temperature applications, and specifically in conjunction with use of the sputtering method. (See page 8, lines 5-19). The Specification to the present Application, on the other hand, teaches to avoid heat processing of the substrate (page 16, lines 4-6), and that this heat processing is accomplished by setting the bias voltage to 0 V. Accordingly, it could not be obvious to assume "no bias voltage" for Kubota's sputtering method, when Kubota requires the different heat processing steps in the described method.

Kubota therefore teaches away from the present invention, which avoids heat processing of the substrate by affirmatively setting the bias voltage condition for the sputtering method to 0 V. The Examiner has cited to no teaching or suggestion within Kubota that Kubota may accomplish the sputtering method without using a bias voltage. The Examiner acknowledges that Kubota is otherwise silent regarding the voltage parameters that Kubota may use for the sputtering method. For at least these reasons as well, the anticipation and obviousness rejections of claim 12 based solely on the Kubota reference is further deficient, and should be withdrawn.

Claims 2, 10, and 15 again stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota. Applicant respectfully traverses this rejection as well for at least the reasons of record, and as follows. A *prima facie* case of obviousness has not been established against these claims either.

The Examiner expressly admits, on page 4 of the outstanding Office Action, that Kubota “is silent with respect to the particular amount of Cr that is present in the Co magnetic layer. Under the requirements of Section 2143.03 of the MPEP, discussed above, this admission by the Examiner alone renders the Section 103 rejection fatally deficient, because not all of the limitations of the present invention are admittedly not taught or suggested by the prior art. For at least these reasons therefore, the rejection of independent claim 2 (and its dependent claims 10 and 15) must be withdrawn.

In spite of this admitted deficiency in the prior art, the Examiner nevertheless contends that the amount of Cr recited in claim 2 of the present invention would still be obvious to one skilled in the art because “the amount of Cr diffused into the grain boundaries affects the coercivity of the medium by directly reducing the size of each ‘magnetic zone.’” The Examiner admits though that this theory is her own contention, and not one stated in the Kubota reference. Accordingly, the Examiner’s contention fails to support a rejection based on obviousness.

Although the Examiner is deemed to have experience in the field of the invention, the determination of patentability must be applied from the viewpoint of one

having ordinary skill in the art. See In re Lee, 277 F.3d, 1338, 61 U.S.P.Q. 2d, 1430 (Fed. Cir. 2002). The determination of patentability cannot therefore be conclusory statements based on the Examiner's knowledge, but instead must be factual statements based on specific teachings and suggestions within the prior art itself. The Examiner's personal contentions must be supported by some objective proof, capable of effective judicial review. The Examiner must also cite all relevant teachings in the field of art which form the basis of the Examiner's knowledge, and include the dates of publication for all such sources. As the Examiner's contentions stand on the record now, the contentions are no more than conclusory statements, which provide no objective basis for adequate rebuttal by Applicant.

Additionally, even if the Examiner's contentions regarding what "would have been clear to one of ordinary skill in the art" were true (which Applicant does not concede), the Examiner has still not established a *prima facie* case of obviousness against claim 2 of the present invention. The Examiner contends that "a very small percentage of Cr" or that "an optimal amount of Cr" could be added to the grain boundaries of the magnetic layer. The Examiner, however, does not even assert what specific amounts of Cr would constitute "a very small percentage" or "an optimal amount." Claim 2 of the present invention, on the other hand, recites a specific concentration for Cr in a magnetic layer consisting of a CoCr-based alloy.

Again, as discussed above, Section 2143.03 of the MPEP requires the Examiner to cite to where in the prior art is taught or suggested *each and every* feature and

limitation of the present invention, including the specific concentrations of materials recited.

This requirement has not been satisfied. It is not enough for the Examiner to contend that a small percentage, or an optimal amount, of some material “may be” added to the magnetic layer of the present invention. The Examiner is instead required to demonstrate that such a material must be, or is actually, added to the magnetic layer, and in the quantities recited in the claims of the present invention. Because the Examiner has not satisfied these requirements, the rejection of claim 2 (and its dependent claims 10 and 15) must be withdrawn for at least these reasons.

Applicant furthermore submits that the Examiner’s contentions are even contradicted by the Kubota reference itself. Kubota, as admitted by the Examiner, provides no teaching or suggestion to add a “small percentage,” or “an optimal amount,” of Cr to the grain boundaries. As previously argued, Kubota teaches that the improvement of coercive force is a result of *thermal treatment*, and not the addition of any material to the grain boundaries of the magnetic layer. There is no evidence in this sole prior art reference that a change in the percentage of Cr would have any affect in the size reduction of each magnetic zone in the crystal grain boundaries. Kubota teaches to accomplish the size reduction of magnetic zones as result of its thermal treatment, whereas the Specification to the present Application teaches to avoid such heat processing of the substrate. The Examiner has not provided an explanation to resolve this conflict between the present Application and the Kubota reference.

For all of the foregoing reasons, Applicant submits that this Application, including claims 2, 10, 12, and 15, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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